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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,916	01/22/2004	Daniel Manuel Dias	SVL920030091US1/4181P	6138

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EXAMINER
PARK, JEONG S

ART UNIT	PAPER NUMBER
2154	

NOTIFICATION DATE	DELIVERY MODE
10/11/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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		Application No.	Applicant(s)
Office Action Summary		10/762,916	DIAS ET AL.
		Examiner	Art Unit	
		Jeong S. Park	2154	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 January 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-33</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>22 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>1/22/2004</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 1-12 and 18 are objected to because of the following informalities:

In claim 1, line 6, the phrase "the checksum segment" should be corrected as –

the checksum symbol segment-- for clear understanding of the claim; and

In claim 18, line 1, the phrase "an input symbol segment" should be corrected as

–the input symbol segment-- for clear understanding of the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

3.   Claims 14-23 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Independent claim 14 is drawn towards a computer program product having

instruction codes. This is just an abstract idea can be written in a computer

programming code. The computer program product defined in the specification is not in

one of the statutory categories. The specification provides no explicit and deliberate

definition of the computer program product.

Claims 15-23, which are dependent on claim 14, do not add any further definition

of the computer program product to the claim and thus are rejected for the same

reason.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1, 5-7, 11-14, 17-19, 22-24 and 28-32 are rejected under 35

U.S.C. 102(e) as being anticipated by Masters et al. (hereinafter Masters)(U.S. Patent

No. 7,051,098 B2).

Regarding claims 1, 14 and 24, Masters teaches as follows:

a method for supporting a transaction application and a parallel application (at

least one task too complex for a single computer to perform, wherein the task inherently

includes any kind of applications, see, e.g., col. 1, lines 24-34) in a clustered system

that utilizes a service level agreement (the Resource Management Architecture

provides the capability of dynamically allocating, and reallocating, applications to hosts

as needed in order to maintain user-specified system performance goals, see, e.g., col.

4, lines 12-17), the method comprising:

monitoring a performance of the clustered system (host monitors monitor the

status and performance of hosts A-N, see, e.g., col. 10, lines 18-39) in response to the

transaction application (application-level instrumentation function group FG2 in figure

2B provides capabilities for collecting and correlating application-provided data such as

application statues, states, performance and internally detected errors, see, e.g., col. 12, lines 1-19), based on the service level agreement (QoS: quality of service) and a workload (host load analyzer FG40 figure 2A, see, e.g., col. 18, lines 39-41) of the clustered system (the data collected from the application-level instrumentation function group FG2 is sent to QoS managers FG44A-FG44N in figure 2A to determine the performance based on the QoS defined for each application, see, e.g., col. 13, lines 1-36);

analyzing the performance of the clustered system to identify a violation of the service level agreement, if any, by the clustered system (QoS managers FG44A-FG44N determine if applications are satisfying their assigned requirements, see, e.g., col. 37, lines 39-47);

in response to the identified violation, dynamically reallocating a computing resource assigned to the parallel application to the transaction application that requires an additional computing resource to meet the service level agreement (when an application is not meeting its performance requirements the QoS managers will request the resource manager FG42 scale up a new copy or move the application to a new host, see, e.g., col. 37, lines 47-58); and

resource allocation decision-making (FG4 in figure 2A) determines the health and state of the distributed environment and the options that are available for attempting to recover from faults or unacceptable performance, see, e.g., col. 8, lines 9-34).

Regarding claims 5, 17 and 28, Masters teaches as follows:

the service level agreement defines an acceptable performance of the clustered

system in response to the transaction application (when an application is not meeting its

performance requirements the QoS managers will request the resource manager FG42

scale up a new copy or move the application to a new host, see, e.g., col. 37, lines 47-

58).

Regarding claims 6, 18 and 29, Masters teaches as follows:

the service level agreement defines an acceptable performance of the clustered

system in response to the parallel application (when an application is not meeting its

performance requirements the QoS managers will request the resource manager FG42

scale up a new copy or move the application to a new host, see, e.g., col. 37, lines 47-

58 and col. 18, lines 42-47); and

QoS manager monitors all of the requirements associated with a single

application path defined in the system specification files (FG32 in figure 2A, see, e.g.,

col. 15, lines 17-36)(see, e.g., col. 37, lines 59-65).

Regarding claims 7, 19, 30 and 32, Masters teaches as follows:

the violation comprises an actual violation of the service level agreement by the

performance of the clustered system (see, e.g., col. 39, lines 3-19).

Regarding claims 11 and 22, Masters teaches as follows:

provisioning the computing resource to execute the transaction application (QoS

managers will request the resource manager FG42 move the application to a new host,

see, e.g., col. 37, lines 47-58).

Regarding claims 12 and 23, Masters teaches as follows:

provisioning the computing resource to execute the parallel application (QoS

managers will request the resource manager FG42 move the application to a new host,

see, e.g., col. 37, lines 47-58).

Regarding claim 13, Masters teaches as follows:

diverting a portion of the workload (application) to the computing resource (QoS

managers will request the resource manager FG42 move the application to a new host,

see, e.g., col. 37, lines 47-58).

Regarding claim 31, Masters teaches as follows:

a method for supporting a transaction application and a parallel application (at

least one task too complex for a single computer to perform, wherein the task inherently

includes any kind of applications, see, e.g., col. 1, lines 24-34) by a clustered system

that implements a service level agreement (user-specified system performance goals,

see, e.g., col. 4, lines 12-17 and Quality of Service (QoS)), the method comprising:

specifying a performance parameter for the service level agreement (host

monitors monitor the status and performance of hosts A-N, see, e.g., col. 10, lines 18-

39);

system specification files (FG32 in figure 2A) are created by the user and provide

a method of the software and hardware components configuration of the distributed

computing environment for each application (see, e.g., col. 15, lines 11-60);

invoking a server allocation utility, wherein the performance parameter is made

available to the server allocation utility for allocating computing resources to meet the

service level agreement (the Resource Management Architecture provides the

capability of dynamically allocating, and reallocating, applications to hosts as needed in

order to maintain user-specified system performance goals, see, e.g., col. 4, lines 12-

17); and

      receiving a level of performance by the clustered system within the parameter of

the service level agreement for a contracted execution of the transaction application and

the parallel application, wherein in response to a violation of the service level agreement

(when an application is not meeting its performance requirements the QoS managers

will request the resource manager FG42 scale up a new copy or move the application to

a new host, see, e.g., col. 37, lines 47-58), the server allocation utility dynamically

reallocates a computing resource that is assigned to the parallel application, to the

transaction application that requires an additional computing resource (resource

allocation decision-making FG4 in figure 2A determines the health and state of the

distributed environment and the options that are available for attempting to recover from

faults or unacceptable performance, see, e.g., col. 8, lines 9-34).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 8-10, 20, 21 and 33 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Masters et al. (hereinafter Masters)(U.S. Patent No. 7,051,098 B2)

as applied to claims 1, 14 and 31 above, and further in view of Gopalan et al.

(hereinafter Gopalan)(U.S. Pub. No. 2003/0208523 A1).

Regarding claims 8, 9, 20, 21 and 33 Masters teaches as follows:

history servers (40 in figure 1A) is used to drive line graph charts for specific

hosts selected at the host display in order to provide CPU load information, network

load information and memory utilization information (see, e.g., col. 46, lines 40-61).

Even though Masters teaches implicitly the claim limitation, Gopalan explicitly

teaches as follows:

a predictive real-time Service Level Agreements (SLAs) monitoring system by a

detailed analysis of traffic flows with reduced monitor data flow across network;

a suitable combination of offline and real-time processing of historical and current

traffic data;

the system analyzes the historical traffic patterns of a network to determine a set

of critical SLAs; and

the system analyzes the gathered data from the master and slave probes to

forecast future violations of the SLA and generate operator SLA violation alarms (see,

e.g., abstract).

It would have been obvious for one of ordinary skill in the art at the time of the

invention to modify Masters to include predictive real-time SLAs monitoring system as

taught by Gopalan in order to efficiently analyze the historical traffic patterns, forecast

future violations of the SLAs and generate operator SLA violation alarms.

Regarding claim 10, Masters teaches as follows:

the computing resource comprises an under-utilized computing resource

(networked computers cooperate in performing at least one task too complex for a

single computer to perform, wherein it is inherent to have under utilized computer

among the networked computers, see, e.g., col. 1, lines 24-34, see, e.g., col. 5, lines

33-39).

8.   Claims 2-4, 15, 16 and 25-27 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Masters et al. (hereinafter Masters)(U.S. Patent No. 7,051,098 B2)

as applied to claims 1, 14 and 24 above, and further in view of Merkling et al.

(hereinafter Merkling)(U.S. Patent No. 5,841,869).

Regarding claims 2-4, 15, 16 and 25-27, Masters teaches as follows:

networked computers cooperate in performing at least one task too complex for a

single computer to perform, wherein the task inherently includes at least one complex

applications (see, e.g., col. 1, lines 24-34); and

system specification files (FG32 in figure 2A) are created by the user and provide

a method of the software and hardware components configuration of the distributed

computing environment for each application (see, e.g., col. 15, lines 11-60).

Even though Masters teaches implicitly the claim limitation, Merkling further

teaches as follows:

heavy transactions applications and parallel applications often require dynamic

process migration and load balancing to meet the fundamental properties required for

such resource management (see, e.g., col. 12, lines 18-31).

It would have been obvious for one of ordinary skill in the art at the time of the

invention to modify Masters to include managing both transaction and parallel

applications under same resource management as taught by Merkling in order to

efficiently allocate different application process to the proper host computer(s) in grid

environment.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jeong S. Park whose telephone number is 571-270-

1597. The examiner can normally be reached on Monday through Thursday 7:30 - 5:00

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Double Patenting

10.   A rejection based on double patenting of the "same invention" type finds its
support in the language of 35 U.S.C. 101 which states that "whoever invents or
discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis
added). Thus, the term "same invention," in this context, means an invention drawn to

identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer <u>cannot</u> overcome a double patenting rejection based upon 35 U.S.C. 101.

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER

11.   Claims 1-33 are provisionally rejected under 35 U.S.C. 101 as claiming the same

invention as that of claims 1-33 of copending Application No. 10/763,135.

Because the copending application teaches all the limitations of the applicant's

claims as listed above.

This is a <u>provisional</u> double patenting rejection since the conflicting claims have

not in fact been patented.

JP

September 15, 2007